

# Drilling for Natural Gas in the Marcellus Shale

Tompkins County's review of  
NYSDEC's

Draft Supplemental Generic  
Environmental Impact Statement

# Impacts of well drilling

- One three acre site per 40 acres or one five acre industrial site per square mile (640 acres)
- 5 million gallons of water per well
- 50,000 gallons of chemicals including carcinogens and endocrine disrupters per well
- Drilling 4-5 weeks per well 24 hours/day
- Up to 10 wells on one pad – must be drilled within three years
- 1200 or more truck trips to site per well
- Industrialization of the landscape with no local land use review



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# Environmental Impacts

- Consumptive use of massive amounts of water
- Introduction of large volumes of chemicals into the environment
- How to treat flowback water and produced brine with potential radioactive materials
- Significant air emissions including those responsible for smog
- Greenhouse gas emissions

# Land Use Impacts

- Visual impacts including lighting of drilling rigs
- Land reclamation standards
- Noise including around the clock drilling
- Change in community character as a result of industrialization of the landscape
- Impacts on roads from heavy truck use

# Socio-Economic Impacts

- Most benefits accrue to a relatively few larger landowners
- Costs are borne by everyone; already impacting local governments in Tompkins County and elsewhere
- Could undermine economic development efforts related to agriculture, tourism, technology and higher education, i.e., sustainable economy
- Potential to dramatically alter quality of life

# Tompkins County Planning Department's Review of the dSGEIS Mitigation Section

- In some cases Mitigation Measures are identified that would appear to be useful in addressing the potential environmental impacts if we could be assured they would be properly implemented
- Too often Mitigation Measures are “suggested” in the dSGEIS when they should be “required”
- Too often Mitigation Measures are inadequate or not addressed at all



# Review of the dSGEIS

- On at least some topics the dSGEIS presents a thorough technical analysis
- Implementation, enforcement and monitoring mechanisms are often unclear
- dSGEIS is ambiguous and sometimes confusing regarding what will actually be required and local government role
- Relies heavily on industry information and self-policing
- Includes unfunded State mandate for County Health Departments
- Totally inadequate consideration of cumulative impacts

# Major Comments to DEC

- dSGEIS does not evaluate all of the generic impacts, including life cycle greenhouse gas emissions and cumulative impacts on traffic and roads, water supplies and quality, habitat, air quality, and community character
- dSGEIS inadequately assesses impacts and mitigation measures required for those aspects of the process that are addressed
- dSGEIS is particularly lacking in addressing impacts on water resources

# Major Comments to DEC

- Mitigation measures should be specific, mandatory and established by regulation
- dSGEIS should establish development thresholds that mitigate cumulative impacts
- Regulatory process should actively involve local governments
- dSGEIS should specify resources DEC needs to implement

# Potential Cumulative Impacts in Tompkins County

- Develop 2500 acres of rural land, 60 miles of access roads and unknown miles of pipelines – 1000 acres deforested and 150 miles of edge created fragmenting forest habitat
- Use equivalent of up to 80% of water currently supplied by three largest public water supplies for 10 years
- Increase heavy truck traffic on State roads by over 80% for 10 years with much greater localized impacts
- Generate Greenhouse gases equal to 17 times current levels in Tompkins County for up to 30 years



# Impacts documented elsewhere

- A study of emissions from the Barnett Shale region of Texas:
  - Smog-causing emissions from oil and gas wells greater than all motor vehicle emissions in the five-county Dallas-Fort Worth area
  - Greenhouse gas emissions equal to the impact of two 750 megawatt coal-fired power plants

# What the EPA has said

- U.S. Environmental Protection Agency comment letter dated December 30, 2009:
  - “EPA believes that the analysis and discussion of cumulative and indirect impacts in the dSGEIS need to be significantly expanded.”

# Where to go from here

- At a minimum:
  - Expand and revise draft SGEIS based on comments and other pending studies, and reissue it for another comment period. Must include a comprehensive analysis of cumulative impacts and identify thresholds, limiting activity as necessary to mitigate those impacts.
  - Undertake a rulemaking process to provide specific, mandatory mitigation measures that are the most protective possible and will be uniformly enforced, and provide opportunity for public comment.

# Where to go from here - continued

- Establish mitigation funds, with cost borne by producers, to address potential water quality remediation, habitat fragmentation, and greenhouse gas emissions impacts.
- Affirm the right of local municipalities to assert their land use regulatory authority to determine areas inappropriate for drilling activity and to regulate aspects of operations best addressed on a site specific basis through site plan review and/or special permit process.



# State Climate Action Plan

Conduct a comprehensive life-cycle analysis of greenhouse gas emissions from Marcellus Shale Natural Gas development and determine whether development of this resource is consistent with State's commitments and goals for reductions of Greenhouse Gas emissions.

# What's the rush?

- Precautionary Principle
- The gas is not going anywhere
- Why not take the time to make sure that if we allow this, we make sure it is done right?